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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,025	08/01/2003	Vernon M. Benson	2507-5936US (22025-US)	4729

60794 7590 04/13/2006

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EXAMINER	
EWALD, MARIA VERONICA	
ART UNIT	**PAPER NUMBER**
1722	

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/633,025	BENSON ET AL.	
	Examiner	Art Unit	
	Maria Veronica D. Ewald	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60* is/are pending in the application.

4a) Of the above claim(s) *1-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *36-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *1/26/06* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/03,9/04,2/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

13. Claims 1 – 35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 26, 2006.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 36 – 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Fell (U.S. 5,543,199). Fell teaches an apparatus for forming elongated composite structural members comprising (column 1, lines 14 – 20) comprising: a base (figure 1); at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry (items 1 and 4 – figures 1 and 2A); a carriage assembly movably coupled to the base (column 13, lines 44 – 45); at least one roller exhibiting a geometry

configured to at least partially complementarily engage the least one mandrel as the at least one roller rolls there along (column 12, lines 24 – 27; column 13, lines 1 – 10), the at least one roller coupled with the carriage assembly (column 13, lines 44 – 45); and at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the least one roller (column 13, lines 14 – 15; column 16, lines 45 – 50); wherein the at least one roller and carriage assembly are mutually configured for the at least one roller to be removed from the carriage assembly and replaced by another roller exhibiting a geometry configured to substantially completely complementarily engage the at least one mandrel (column 12, lines 49 – 53; column 13, lines 44 – 50); wherein the at least one roller comprises a plurality of rollers coupled with the carriage assembly (figure 9; column 13, lines 44 – 45); wherein the apparatus is further comprised of an automated material-dispensing device configured to dispense a plurality of plies of material over the at least one mandrel along a length thereof (column 14, lines 50 – 60); wherein the automated material-dispensing device is configured to dispense the plurality of plies of material including a first ply exhibiting a first width, and at least a second ply exhibiting a second width different than the first width (column 14, lines 53 – 67; column 15, lines 1 – 20).

With respect to claims 41 – 50, Fell further teaches that the at least one roller and the at least one mandrel are complementarily configured to form an elongated composite structural member substantially exhibiting a cross-sectional geometry of a hat as taken transversely to a length thereof (figure 3); wherein the at least one roller and the at least one mandrel are complementarily configured to form an elongated

composite structural member substantially exhibiting a cross-sectional geometry of at least one C-shape as taken transversely to a length thereof (figure 5A); wherein the at least one roller and the at least one mandrel are complementarily configured to form an elongated composite structural member substantially exhibiting a cross-sectional geometry of at least one angle as taken transversely to a length thereof (figures 5A – 5C); wherein the at least one roller and the at least one mandrel are complementarily configured to form an elongated composite structural member substantially exhibiting a cross-sectional geometry including at least one arcuate section taken transversely to a length thereof (figure 5A); wherein the at least one force-applying mechanism includes at least one weight operably coupled to the at least one roller to press the at least one roller over the at least one mandrel; wherein the at least one force-applying mechanism includes a hydraulic system and wherein the at least one force-applying mechanism includes a pneumatic system (column 13, lines 1 – 20; column 16, lines 45 – 50). In addition, Fell teaches that the at least one mandrel includes a plurality of mandrels laterally spaced from one another (figures 1 and 2A); wherein the least one roller is configured to move laterally with respect to the base and independently engage each of the plurality of mandrels (figure 9; column 12, lines 25 – 40; column 13, lines 1 – 5).

With respect to claims 50 – 60, Fell further teaches that the at least one roller includes a plurality of rollers, and wherein at least one roller of the plurality engages each of the plurality of mandrels (figure 9; column 13, lines 44 – 45); wherein the plurality of mandrels includes a first mandrel exhibiting a first geometric configuration and a second mandrel exhibiting a second geometric configuration different from the

first geometric configuration (column 8, lines 1 – 13); wherein the apparatus is further comprised of a heating device configured and oriented to heat at least a portion of any material disposed over the at least one mandrel (column 12, lines 30 – 35; column 13, lines 60 – 65); wherein the heating device is coupled with the carriage assembly (column 12, lines 30 – 35; column 13, lines 1 – 5); wherein the apparatus is further comprised of a heating device configured and located to heat the at least one mandrel (column 10, lines 1 – 10); wherein there is a controller operably coupled with the apparatus and configured to control movement of the carriage assembly relative to the base about a plurality of axes and wherein the controller is further configured to control operation of the at least one force-applying mechanism (column 13, lines 45 – 51). In addition, the reference teaches that the apparatus is further comprised of an automated material-dispensing device configured to dispense a plurality of plies of material over the at least one mandrel along a length thereof, and a heating device configured and located to provide heat to at least one of the plurality of plies and the at least one mandrel and wherein the controller is configured to control operation of the automated material-dispensing device and the heating device, wherein the controller includes a processor, a memory device, at least one input device and at least one output device (column 12, lines 30 – 35; column 14, lines 53 – 60); wherein the at least one mandrel includes a first section extending along a longitudinal axis and a second section which deviates from the longitudinal axis (figures 1 and 2A); wherein the at least one roller is configured to remain substantially continuously engaged with the at least one mandrel

as it moves relative to the base over the first mandrel section and the second mandrel section (column 12, lines 25 – 26; column 13, lines 1 – 5).

Claims 36 – 37, 39 – 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Gardner (U.S. 2003/0079825 A1). Gardner teaches an apparatus for forming elongated composite structural members comprising (abstract): a base; at least one mandrel mounted on the base, the at least one mandrel exhibiting a substantially elongated geometry (item 25 – figure 3; paragraph 0020); a carriage assembly movably coupled to the base (paragraph 0020); at least one roller exhibiting a geometry configured to at least partially complementarily engage the least one mandrel as the at least one roller rolls there along (item 27 – figures 4 – 6; paragraph 0021), the at least one roller coupled with the carriage assembly (paragraph 0021); and at least one force-applying mechanism configured to apply a desired force to the at least one mandrel through the least one roller (paragraph 0022); wherein the at least one roller and carriage assembly are mutually configured for the at least one roller to be removed from the carriage assembly and replaced by another roller exhibiting a geometry configured to substantially completely complementarily engage the at least one mandrel (paragraphs 0023 – 0024); wherein the apparatus is further comprised of an automated material-dispensing device configured to dispense a plurality of plies of material over the at least one mandrel along a length thereof (paragraph 0027); wherein the automated material-dispensing device is configured to dispense the plurality of plies of

material including a first ply exhibiting a first width, and at least a second ply exhibiting a second width different than the first width (paragraphs 0025 – 0027).

In addition, Gardner, et al. further teach that the at least one roller and the at least one mandrel are complementarily configured to form an elongated composite structural member substantially exhibiting a cross-sectional geometry of a hat as taken transversely to a length thereof (figure 1); wherein the at least one roller and the at least one mandrel are complementarily configured to form an elongated composite structural member substantially exhibiting a cross-sectional geometry of at least one C-shape as taken transversely to a length thereof (figure 1); wherein the at least one roller and the at least one mandrel are complementarily configured to form an elongated composite structural member substantially exhibiting a cross-sectional geometry of at least one angle as taken transversely to a length thereof (figure 1); wherein the at least one roller and the at least one mandrel are complementarily configured to form an elongated composite structural member substantially exhibiting a cross-sectional geometry including at least one arcuate section taken transversely to a length thereof (figure 1); wherein the at least one force-applying mechanism includes at least one weight operably coupled to the at least one roller to press the at least one roller over the at least one mandrel (paragraphs 0021 – 0022, 0027 – 0028).

References of Interest

15. Weight, et al. (U.S. 2001/0001409 A1) and Donecker (U.S. 5,882,462) are cited of interest to show the state of the art.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JOSEPH S. DEL SOLE
PRIMARY EXAMINER
4/4/06

MVE